



3. The searching apparatus as set forth in claim 1,

wherein the designating device designates a  
5 search pattern of which the relation of the  
sequence of the plurality of events is described at  
arbitrary intervals.

4. The searching apparatus as set forth in  
10 claim 1, further comprising

a generating device collecting a set of  
records that contain a first attribute and a set of  
records that contain a second attribute and  
generating a set of records that contain both the  
15 first attribute and the second attribute,

wherein the searching device searches the  
generated set of records.

5. The searching apparatus as set forth in  
20 claim 1, further comprising

a compressing device compressing data of at  
least one of the plurality of attributes so as to  
compress the data of the set of records,

wherein the searching device searches the  
25 compressed set of data.

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6. The searching apparatus as set forth in claim 1, further comprising

a deleting device deleting unnecessary records  
5 from the set of records according to the search pattern,

wherein the searching device searches rest of the set of records.

10 7. The searching apparatus as set forth in claim 1, further comprising

a rewriting device rewriting attribute values of an attribute of the plurality of attributes that have a hierarchical structure,

15 wherein the searching device searches a set of records that have been rewritten.

8. The searching apparatus as set forth in claim 1,

20 wherein the designating device designates as a pattern matching method for matching the search pattern and the combination of records, one of a longest match for returning a combination of events whose interval is the longest in combinations of  
25 events that match the search pattern, a shortest

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match for returning a combination of events whose interval is the shortest in combinations of events that match the search pattern, a match for repeating the shortest match, an all match for returning all combinations of events that match the search pattern, a backward longest match for returning a combination of events whose interval is the longest in combinations of events that backwardly match the search pattern, and a backward shortest match for returning a combination of events whose interval is the shortest in combinations of events that backwardly matches the search pattern, and

wherein the searching device performs a pattern matching by the designated method.

9. The searching apparatus as set forth in claim 1,

wherein the designating device includes a graphic user interface for defining the plurality of events and the relation of the sequence of the plurality of events.

10. The searching apparatus as set forth in claim 1,

wherein the outputting device outputs information about the combination of records corresponding to the search pattern.

5           11. The searching apparatus as set forth in claim 1,

          wherein the designating device designates a format of the searched result, and

          wherein the outputting device compiles  
10       information about the combination of records corresponding to the search pattern in the designated format and outputs the result.

          12. The searching apparatus as set forth in  
15       claim 1,

          wherein the outputting device performs an aggregate operation for the combination of records corresponding to the search pattern and outputs an operation result.

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          13. The searching apparatus as set forth in claim 1,

          wherein the designating device designates an attribute used for sorting records, and

25       wherein the searching device sorts the set of

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records by values of the designated attribute and searches a set of records that have been sorted.

14. The searching apparatus as set forth in  
5 claim 13,

wherein the designating device designates an attribute used for grouping records, and

wherein the searching device groups the set of records by values of the designated attribute and  
10 sorts records of each group.

15. The searching apparatus as set forth in claim 1, further comprising

an indexing device used for accessing the set  
15 of records according to the order of the attribute values.

16. The searching apparatus as set forth in claim 15, further comprising

20 a group information storing device used for accessing the set of records for each group according to values of a predetermined attribute.

17. A computer-readable recording medium on  
25 which a program is stored, the program causing a

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computer for searching a set of records for a combination of records, each of the records being composed of a plurality of attributes, to perform:

designating a search pattern using a plurality  
5 of events and relation of a sequence of the plurality of events, each of the events defining a particular attribute of a record as a particular value, the relation of the sequence of the events being defined according to an order of attribute  
10 values;

searching the set of records for a combination of records corresponding to the designated search pattern; and

outputting a searched result.  
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18. A propagation signal for propagating a program causing a computer for searching a set of records for a combination of records, each of the records being composed of a plurality of attributes,  
20 to perform:

designating a search pattern using a plurality of events and relation of a sequence of the plurality of events, each of the events defining a particular attribute of a record as a particular  
25 value, the relation of the sequence of the events

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being defined according to an order of attribute values;

searching the set of records for a combination  
of records corresponding to the designated search  
5 pattern; and  
outputting a searched result.

19. A searching method for searching a set of  
records for a combination of records, each of the  
10 records being composed of a plurality of attributes,  
the method comprising:

inputting into a computer a search pattern  
designated by using a plurality of events and  
relation of a sequence of the plurality of events,  
15 each of the events defining a particular attribute  
of a record as a particular value, the relation of  
the sequence of the events being defined according  
to an order of attribute values; and

searching the set of records for a combination  
20 of records corresponding to the designated search  
pattern.

20. A searching apparatus for searching a set  
of records for a combination of records, each of  
25 the records being composed of a plurality of

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attributes, the searching apparatus comprising:

designating means for designating a search pattern using a plurality of events and relation of a sequence of the plurality of events, each of the events defining a particular attribute of a record as a particular value, the relation of the sequence of the events being defined according to an order of attribute values;

searching means for searching the set of records for a combination of records corresponding to the designated search pattern; and

outputting means for outputting a searched result.